

**IN THE CLAIMS:**

1 1. – 5. (Cancelled)

1 6. (Currently Amended) A method of claiming ownership of a disk by a network device  
2 in a network storage system comprising the steps of:  
3 writing ownership information to a predetermined area of the disk; and  
4 setting a small computer system interface ~~persistent~~-reservation tag for the disk to  
5 a state of network device ownership to provide a two part indicia of ownership for the  
6 disk, where the two part indicia of ownership are both written to the disk.

1 7. (Original) The method of claim 6 wherein the ownership information further com-  
2 prises a serial number of a network device.

1 8. (Original) The method of claim 6, wherein the network device comprises a file server.

1 9. (Currently Amended) A network storage system comprising:  
2 a plurality of network devices;  
3 one or more switches, each network device connected to at least one of the one or  
4 more switch; and  
5 a plurality of disks having a first ownership attribute written to a predetermined  
6 area of theeach disk and a second ownership attribute in the form of a small computer  
7 system interface ~~persistent~~-reservation tag, wherein the first and second ownership attrib-  
8 ute are written to each disk, each disk connected to at least one of the plurality of  
9 switches.

1 10. (Cancelled)

- 1 11. (Currently Amended) The network storage system of claim 9, wherein the small
- 2 | computer system interface ~~persistent~~-reservation tag is a small computer system interface
- 3 | level 3 persistent reservation tag.
- 1 12. (Currently Amended) The networked storage system of claim 9, wherein the small
- 2 | computer system interface ~~3-persistent~~-reservation tag is set such that only the network
- 3 | device may write to the disk.
- 1 13. (Previously Presented) The network storage system of claim 9, wherein the first
- 2 | ownership attribute further comprises a serial number of the network device that owns
- 3 | that particular disk.
- 1 14. (Previously Presented) The network storage system of claim 9, wherein each of the
- 2 | plurality of file servers can read data from each of the plurality of disks.
- 1 15. (Previously Presented) The network storage system of claim 9, wherein only a net-
- 2 | work device that owns one of the plurality of disks can write data to the one disk.
- 3 16. (Original) The network storage system of claim 9, wherein the network devices com-
- 4 | prise file servers.
- 1 17. (Currently Amended) A network storage system comprising:  
2 | one or more switches;  
3 | a plurality of disks; and  
4 | means for writing ownership information to a predetermined area of ~~a-each~~ disk  
5 | ~~of the plurality of disks~~; and

6      means for setting a small computer system interface ~~level 3 persistent~~-reservation  
7      tag of ~~a~~each disk to provide a two part indicia of ownership, where the two part indicia  
8      of ownership are written to each disk.

1      18. (Cancelled)

1      19. (Original) The network storage system of claim 17, wherein the network devices  
2      comprise file servers.

1      20. (Currently Amended) A network storage system comprising:  
2              one or more switches interconnected to form a switching fabric;  
3              a plurality of disks, each of the disks connected to at least one of the switches,  
4              each disk storing a first ownership attribute to a predetermined area of a disk and  
5              each disk associated with a second ownership attribute in the form of a small  
6              computer system interface ~~persistent~~-reservation; and  
7              one or more network devices, interconnected with the switching fabric, each of  
8              the network devices being adapted to own a predetermined set of disks of the plurality of  
9              disks through use of the first and second ownership attributes.

1      21. (Cancelled)

1      22. (Cancelled)

1      23. (Previously Presented) The network storage system of claim 20, wherein the first  
2      ownership attribute further comprises a serial number of one of the one or more network  
3      devices.

1    24. (Currently Amended) The network storage system of claim 20, wherein the small  
2    | computer system interface ~~persistent-reservation~~ is a small computer system interface  
3    | level 3 persistent reservation.

1    25. (Original) The network storage system of claim 20, wherein each of the network de-  
2    vices further comprises a disk ownership table, the disk ownership table containing own-  
3    ership data for each of the disks.

1    26. (Original) The network storage system of claim 25, wherein the ownership table fur-  
2    ther comprises a world wide name for each of the disks, the world wide name being used  
3    for identification of each of the disks.

1    27. (Currently Amended) A computer-readable medium, including program instructions  
2    executing on network device, for performing the steps of:

3                writing ownership information to a predetermined area of a disk; and  
4                setting a small computer system interface ~~persistent-reservation~~ tag for the disk to  
5                a state of network device ownership to provide a two part indicia of ownership for the  
6                disk, where the two part indicia of ownership are both written to the disk.

1    28. (Currently Amended) A method for a network device to manage ownership of one  
2    or more storage devices in a network storage system, comprising the steps of:  
3                reading ownership information from a predetermined area of each storage device;  
4                in response to reading the ownership information, creating an ownership table that  
5                identifies the one or more storage devices owned by the network device;  
6                reading a small computer system interface (SCSI) ~~level 3 persistent-reservation~~  
7                tag from each storage device;

8        comparing the SCSI ~~level 3~~ persistent reservation tag to the ownership information of the same storage device and, if there is not a match, changing the SCSI ~~level 3~~  
9        persistent reservation tag to match the ownership information; and  
10      configuring the one or more storage devices identified in the ownership table into  
11      at least one volume for use by the network device.

1        29. (Previously Presented) The method of claim 28 further comprising:  
2            setting ownership information at the predetermined area of each storage device.

1        30. (Previously Presented) The method of claim 28 wherein the step of configuring further comprises:

3            organizing the one or more storage devices into at least one Redundant Array of  
4        Independent Disks (RAID) group.

1        31. (Previously Presented) The method of claim 28 further comprising:  
2            wherein the predetermined area of the one or more storage devices is sector zero  
3        of the one or more storage devices.

1        32. (Previously Presented) The method of claim 28 further comprising:  
2            wherein the ownership information is a serial number of the network device that  
3        owns that particular storage device.

1        33. (Previously Presented) The method of claim 28 further comprising:  
2            wherein the ownership table includes a world wide name for each of the storage  
3        devices, the world wide name being used to identify each of the storage devices.

1        34. (Currently Amended) A network device for managing ownership of one or more  
2        storage devices in a network storage system, comprising the steps of:

3           means for reading ownership information from a predetermined area of each stor-  
4       age device;  
5           in response to reading the ownership information, means for creating an owner-  
6       ship table that identifies the one or more storage devices owned by the network device;  
7        means for reading a small computer system interface (SCSI) ~~level 3 persistent~~ res-  
8       ervation tag from each storage device;  
9        means for comparing the SCSI ~~level 3 persistent~~ reservation tag to the ownership  
10      information of the same storage device and, if there is not a match, changing the SCSI  
11      ~~level 3 persistent~~ reservation tag to match the ownership information; and  
12       means for configuring the one or more storage devices identified in the ownership  
13      table into at least one volume for use by the network device.

1       35. (Currently Amended) A computer readable medium containing executable program  
2       instructions for managing ownership of one or more storage devices in a network storage  
3       system, the executable program instructions comprising program instructions for:  
4           reading ownership information from a predetermined area of each storage device;  
5           in response to reading the ownership information, creating an ownership table that  
6        identifies the one or more storage devices owned by the network device;  
7        reading a small computer system interface (SCSI) ~~level 3 persistent~~ reservation  
8       tag from each storage device;  
9        comparing the SCSI ~~level 3 persistent~~ reservation tag to the ownership informa-  
10      tion of the same storage device and, if there is not a match, changing the SCSI ~~level 3~~  
11      ~~persistent~~ reservation tag to match the ownership information; and  
12       configuring the one or more storage devices identified in the ownership table into  
13      at least one volume for use by the network device.  
1       36. (Currently Amended) A network storage system, comprising:

2        one or more storage devices, each storage device having a predetermined area for  
3        storing ownership information and each storage device having a small computer system  
4        interface (SCSI) ~~level 3 persistent~~ reservation tag;  
5                at least one network device having an ownership table constructed based upon  
6        the ownership information from each storage device;  
7                the at least one network device having an ownership layer for comparing the SCSI  
8        ~~level 3 persistent~~ reservation tag to the ownership information of the same storage device  
9        and, if there is not a match, changing the SCSI ~~level 3 persistent~~ reservation tag to match  
10      the ownership information; and  
11                the at least one network device having a disk storage layer for configuring the one  
12        or more storage devices identified in the ownership table into at least one volume for use  
13        by the network device.

1        37. (Previously Presented) The network storage system of claim 36 further comprising:  
2                the ownership layer adapted to set ownership information at the predetermined  
3        area of each storage device.

1        38. (Previously Presented) The network storage system of claim 36 further comprising:  
2                the disk storage layer organizing the one or more storage devices into at least one  
3        Redundant Array of Independent Disks (RAID) group.

1        39. (Previously Presented) The network storage system of claim 36 further comprising:  
2                wherein the predetermined area of the one or more storage devices is sector zero  
3        of the one or more storage devices.

1        40. (Previously Presented) The network storage system of claim 36 further comprising:  
2                wherein the ownership information is a serial number of the network device that  
3        owns that particular storage device.

1    41. (Previously Presented) The network storage system of claim 36 further comprising:  
2                wherein the ownership table includes a world wide name for each of the storage  
3                devices, the world wide name being used to identify each of the storage devices.

1    42. (Currently Amended) The method of claim 6 wherein the small computer system in-  
2    terface ~~persistent~~-reservation tag and the ownership information at the predetermined area  
3    of the disk indicate ownership by the same network device.

1    43. (Currently Amended) The method of claim 6 wherein the small computer system  
2    interface ~~persistent~~-reservation tag is a small computer system interface level 3 persistent  
3    reservation tag.

1    44. (Currently Amended) A method for a network device to manage ownership of one  
2    or more storage devices in a network storage system, comprising the steps of:  
1                reading ownership information from a predetermined area of each storage device;  
2                accessing a small computer system interface (SCSI) ~~persistent~~-reservation tag as-  
3                sociate with each storage device;  
4                comparing the SCSI ~~persistent~~-reservation tag to the ownership information of the  
5                same storage device and, if there is not a match, changing the SCSI ~~persistent~~-reservation  
6                tag to match the ownership information; and  
7                configuring the one or more storage devices for use by the network device.

1    45. (Currently Amended) The method of claim 44 wherein the small computer system  
2    interface (SCSI) ~~persistent~~-reservation tag is a small computer system interface level 3  
3    (SCSI-3) persistent reservation tag.

1    46. (Previously Presented) The method of claim 44 further comprising:

1           in response to reading the ownership information, creating an ownership table on  
2   the network device that identifies the one or more storage devices owned by the network  
3   device; and  
4           using the ownership table to configure the one or more storage devices into at  
5   least one volume.

1   47. (Previously Presented) The method of claim 44 further comprising:  
2           setting ownership information at the predetermined area of each storage device.

1   48. (Previously Presented) The method of claim 44 further comprising:  
2           wherein the predetermined area of the one or more storage devices is sector zero  
3   of the one or more storage devices.

1   49. (Currently Amended) A network storage system, comprising:  
2           means for reading ownership information from a predetermined area of each stor-  
3   age device;  
4           means for accessing a small computer system interface (SCSI) persistent-reserva-  
5   tion tag associate with each storage device;  
6           means for comparing the SCSI persistent-reservation tag to the ownership infor-  
7   mation of the same storage device and, if there is not a match, changing the SCSI persis-  
8   tent-reservation tag to match the ownership information; and  
9           means for configuring the one or more storage devices for use by the network de-  
10   vice.

1   50. (Currently Amended) A computer readable medium containing executable program  
2   instructions for manage ownership of one or more storage devices, the executable pro-  
3   gram instructions comprising program instructions for:  
4           reading ownership information from a predetermined area of each storage device;

5       accessing a small computer system interface (SCSI) ~~persistent~~-reservation tag as-  
6       sociate with each storage device;  
7       comparing the SCSI ~~persistent~~-reservation tag to the ownership information of the  
8       same storage device and, if there is not a match, changing the SCSI ~~persistent~~-reservation  
9       tag to match the ownership information; and  
10      configuring the one or more storage devices for use by the network device.

1       51. (Currently Amended) A network storage system comprising:  
2           a plurality of disks having a first ownership attribute written to a known and con-  
3           stant location across all the disks and a second ownership attribute in the form of a small  
4           computer system interface (SCSI) ~~persistent~~-reservation tag to provide a two part indicia  
5           of ownership; and  
6           a network device with an ownership layer for comparing the SCSI persistent res-  
7           ervation tag to the ownership information stored in the known and constant location of  
8           the same storage device and, if there is not a match, changing the SCSI persistent reserva-  
9           tion tag to match the ownership information stored in the known and constant location.

1       52. (Currently Amended) A method for a network device to manage ownership of one or  
2       more storage devices in a network storage system, comprising the steps of:  
1           reading ownership information of each storage device from a known and constant  
2       location across all storage devices;  
3           accessing a small computer system interface (SCSI) ~~persistent~~-reservation tag as-  
4       sociate with each storage device; and  
5           comparing the SCSI ~~persistent~~-reservation tag to the ownership information of the  
6       same storage device and, if there is not a match, changing the SCSI persistent reservation  
7       tag to match the ownership information stored on the storage device in the known and  
8       constant location.

Please add new claim 53

- 1        53. (New) A method, comprising:
  - 2                writing ownership information to a predetermined area of the disk to claim write
  - 3                ownership by a first server;
  - 4                setting a small computer system interface (SCSI) reservation tag to a state of the
  - 5                first server ownership to provide a two part indicia of ownership for the first server; and
  - 6                determining, by a second server, the disk is owned by the first server by reading
  - 7                the ownership information in the predetermined area of the disk.